REMARKS

Claims 1-20 were originally filed in the present application.

Claims 1-20 are pending in the present application.

Claims 5-7 and 13-15 were previously amended.

Claims 1-20 were rejected in the May 31, 2005 Office Action.

No claims have been allowed.

Reconsideration of Claims 1-20 is respectfully requested in view of the following arugments.

In Sections 4-12 of the May 31, 2005 Office Action, the Examiner rejected Claims 1-5, 7-13, 15-18 and 20 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,665,718 to *Chuah et al.* (hereafter, "*Chuah*"). In Sections 13-15 of the May 31, 2005 Office Action, the Examiner rejected Claims 6, 14 and 19 under 35 U.S.C. §103(a) as being unpatentable over *Chuah* in view of U.S. Patent No. 5,603,084 to *Henry et al.* (hereafter, "*Henry*"). The Examiner asserted, in essence, that limitations recited in Claims 6, 14, and 19 regarding "the step of determining that an unprovisioned mobile station [ ] is unauthorized according to a predetermined telephone number" that are not found in the *Chuah* reference are instead found in the *Henry* reference.

The Applicants respectfully disagree with the rejections of Claims 1-20 and direct the Examiner's attention to independent Claim 1, which contains the unique and non-obvious limitations emphasized below:

> 1.   For use in a wireless network comprising a plurality of base stations, each of said base stations capable of communicating with a plurality of mobile stations, a security device capable of preventing an unprovisioned one of said

plurality of mobile stations from accessing an Internet protocol (IP) data network through said wireless network, said security device comprising:

a first controller capable of receiving from said unprovisioned mobile station an IP data packet comprising an IP packet header and an IP packet payload and replacing said IP packet header with a replacement IP packet header comprising an IP address of a selected one of at least one provisioning server of said wireless network. (*emphasis added*)

The Applicants respectfully assert that the above-emphasized limitations are not disclosed, suggested, or even hinted at in the *Chuah* reference.

In rejecting Claim 1, the Examiner asserted that the *Chuah* reference discloses "replacing said IP packet header with a replacement IP packet header comprising an IP address of a selected one of at least one provisioning server of said wireless network." The Examiner asserted that this limitation of Claim 1 is found in the *Chuah* reference at column 7, lines 31-41, and at column 8, lines 1-12.

The Applicants respectfully disagree with the Examiner's assertions regarding the subject matter disclosed in the *Chuah* reference. The Applicants believe that the Examiner has confused two entirely different wireless network processes, namely: i) the registration process; and ii) the provisioning process. These processes are not the same. A provisioning process is an operation that occurs the first time a mobile device is used. A registration process can only happen on a mobile device that has already been provisioned.

The provisioning process occurs between a new mobile station and a provisioning server. Among other things, the provisioning server provides the new mobile station with a unique phone number and provides the mobile station with a list (i.e., a Preferred Roaming List) of frequencies/bands of service provider networks in which the mobile station is allowed to operate.

This gives the mobile station a roaming capability. The provisioning server also activates an authentication code in the mobile station. Once the mobile station has been provisioned, subscriber information related to the provisioned mobile station is added to a Home Location Register (HLR) of the subscriber's network.

Thereafter, whenever the provisioned mobile station is turned on by the subscriber, the wireless network and the mobile station perform a registration process that accesses the HLR in order to obtain subscriber information for the mobile station and to allow the mobile station to operate in the wireless network. This is true whether the mobile station is operating in its home network or is roaming in a wireless network of a different service provider. A copy of the subscriber information in the HLR is often kept in a visitor location register (VLR) during a phone call.

In rejecting Claim 1, the Examiner relied on the *Chuah* reference at column 7, lines 31-41, and at column 8, lines 1-12. The text of the *Chuah* reference at column 7, lines 27-41, states in its entirety:

> Using the proxy registration agent (i.e., foreign agent FA) in a base station, the user registration agent of an end system is able to discover a point of attachment to the network and register with a registration server in the MSC (mobile switching center) of the home network. The home registration server determines the availability of each of the plural inter-working function modules (IWFs) in the network (actually software modules that run on processors in both the MSC and the wireless hubs) and assigns IWF(s) to the registered end system. For each registered end system, a tunnel (using the XTunnel protocol) is created between the wireless hub in the base station and an inter-working function (IWF) in the mobile switching center (MSC), this tunnel transporting PPP frames between the end system and the IWF.

Also, the text of the *Chuah* reference from column 7, line 66, to column 8, line 12, states in its entirety:

In the reverse (up link) direction, PPP frames traveling from the end system to the IWF are sent over the MAC and air link to the base station. The base station relays these frames to the IWF in the MSC using the XTunnel protocol. The IWF delivers them to a PPP server for processing. For internet access, the PPP server may be in the same machine as the IWF. For ISP or intranet access, the PPP server is in a private network and the IWF uses the layer two tunneling protocol (L2TP) to connect to it.

In the forward (down link) direction, PPP frames from the PPP server are relayed by the IWF to the base station using the XTunnel protocol. The base station de-tunnels down link frames and relays them over the air link to the end system, where they are processed by the end system's PPP layer.

The Applicants respectfully assert that the above-cited portions of the *Chuah* reference relied upon by the Examiner have nothing to with provisioning a mobile station and do not disclose the Claim 1 limitation regarding replacing the IP packet header from an unprovisioned mobile station with a replacement IP packet header comprising an IP address of a provisioning server of a wireless network. In fact, the Applicants have performed a computer search of the *Chuah* reference and have found no use of the word "provision" except to refer to a claim of priority to Provisional Patent Application No. 60/061,915.

The Applicants note that the device disclosed in the *Chuah* reference is directed to a different problem than the claimed invention. The *Chuah* reference discloses a wireless data network that includes a wireless packet switched data network for end users that divides mobility management into local, micro, macro and global connection handover categories and minimizes handoff updates according to the handover category. The network in the *Chuah* reference integrates MAC handoff messages with network handoff messages and separately directs registration functions to a registration server and directs routing functions to inter-working function units (emphasis added).

The *Chuah* reference discloses that an intermediate XTunnel channel is provided between a wireless hub and an inter-working function (IWF) unit in a foreign network. The *Chuah* reference also discloses an IXTunnel channel between an inter-working function unit in a foreign network and an inter-working function unit in a home network. See Abstract of the *Chuah* reference.

The Applicant note that the XTunnel described in the *Chuah* reference does not replace the IP header of the IP packet received from the mobile station with another header. Instead, a tunneling protocol embeds an IP packet from a source device inside of another tunneling IP packet. At the receiving tunneling device, the original IP packet – including its original IP address – is removed from the tunneling IP packet and then forwarded to the final destination device indicated by the original IP address. Unlike the security device recited in Claim 1, the registration agent described in the *Chuah* reference is not concerned with preventing unprovisioned mobile stations from accessing the IP network. Rather, the registration agent of the *Chuah* reference is concerned with registering an already-provisioned mobile station attempting to establish either fixed or roaming service with its home network or a foreign network. See *Chuah*, col. 6, lines 28-57.

In sum, independent Claim 1 contains unique and non-obvious limitations that are not disclosed, suggested, or even hinted at in the *Chuah* reference. The Applicants respectfully assert that the *Henry* reference does nothing to overcome the shortcomings of the *Chuah* reference. Thus, Claim 1 is patentable over the *Chuah* reference and the *Henry* reference, either separately or in combination. Additionally, Claims 2-8 depend from Claim 1 and contain all of the unique and non-

obvious limitations recited in Claim 1. This being the case, Claims 2-8 are also patentable over the *Chuah* and *Henry* references.

The Applicants respectfully assert that independent Claims 9 and 17 recite limitations that are analogous to the unique and non-obvious limitations recited in Claim 1. Thus, Claims 9 and 17 are patentable over the cited prior art. Additionally, dependent Claims 10-16 and 18-20 depend from independent Claims 9 and 17, directly or indirectly, and contain all of the unique and non-obvious limitations recited in independent Claims 9 and 17. As such, Claims 10-16 and 18-20 also are patentable over the *Chuah* and *Henry* references. The Applicants request the withdrawal of the §102 rejection of Claims 1-5, 7-13, 15-18 and 20 and the §103 rejection of Claims 6, 14 and 19.

The Applicants also disagree with the Examiner's rejections of Claims 2-20 based on additional misdescriptions and/or misapplications of the *Chuah* and *Henry* references to at least some of Claims 2-20. However, the Applicants' arguments regarding those other shortcomings of the *Chuah* and *Henry* references are moot in view of the Claim 1 arguments above. However, the Applicants reserve the right to dispute in future Office Action responses the appropriateness and the applications of the *Chuah* and *Henry* references to the claims of the present application, including the right to dispute assertions made by the Examiner in the May 31, 2005 Office Action.

SUMMARY

For the reasons given above, the Applicants respectfully request reconsideration and allowance of pending claims and that this Application be passed to issue. If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *jmockler@davismunck.com*.
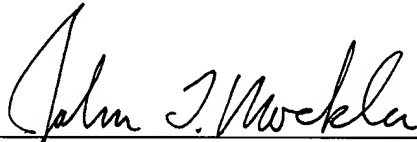
The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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